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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,107	07/06/2001	Kazuo Saito	0171-0763P	2711

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EXAMINER

ALEJANDRO, RAYMOND

ART UNIT PAPER NUMBER

1745

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/899,107

Applicant(s)

SAITO ET AL.

Examiner

Raymond Alejandro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Response to Amendment

This office action is in response to the amendment filed on 05/21/03. The applicants have overcome the objections and the 35 USC 112 rejections. However, the instant claims are finally rejected as seen below for the reasons of record.

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Saito et al US 2002/0028368.

The instant application is directed to a fuel cell separator wherein the disclosed inventive concept comprises the specific particle and composition feature.

The applied reference has common inventors with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

As to claims 1, 2 and 6-7:

Saito et al disclose a fuel cell separator which is molded from an electrically conductive resinous composition wherein the fuel cell separator has on one side or both sides thereof grooves through which reactant gas is supplied (claim 4); the process for producing the fuel cell

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separator is also disclosed (claim 5); the injection molding mixture comprises 100 parts by mass of the thermoplastic resin and 100-1000 parts by mass of the electrically conductive carbon powder (claims 2 and 5/ sections 0019). It is also disclosed that the mean particle diameter is 10-500 μm (section 0017), preferably 30-300 μm (section 0043). The carbon powder component can be flake graphite or massive graphite among others (section 0042).

With respect to claim 5:

It is disclosed that the resistivity is preferably 2-30 $\text{m}\Omega\cdot\text{cm}$ (section 0060); and specifically, 12.72 $\text{m}\Omega\cdot\text{cm}$, 18.7 $\text{m}\Omega\cdot\text{cm}$, 15.2 $\text{m}\Omega\cdot\text{cm}$, 16.0 $\text{m}\Omega\cdot\text{cm}$, 14.2 $\text{m}\Omega\cdot\text{cm}$, 3.5 $\text{m}\Omega\cdot\text{cm}$, 7.9 $\text{m}\Omega\cdot\text{cm}$ (Table 1).

Regarding claims 3 and 7:

The density is greater than 0.6 g/ml, that is, 1.9 g/ml, 1.83 g/ml, 1.77 g/ml, 1.94 g/ml and the like (Table 1).

As to claim 1 and 4:

It is disclosed that the electrically conductive carbon powder should preferably has the following mean particle diameter and the particle size distribution (section 0044):

$D < 10 (\mu\text{m})$	less than 1%
$10 \leq D < 700 (\mu\text{m})$	50-99%
$D \geq 700 (\mu\text{m})$	remainder

As to claim 8:

The polymer electrolyte fuel cell consisting of a plurality of unit cells connected together, each unit cell consisting of a pair of electrodes holding a polymer electrolyte membrane

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therebetween and a pair of separators holding the electrodes between them, said separator having passages molded therein through which gas is supplied and discharged (claim 6).

Thus, the claims are anticipated.

Response to Arguments

3. Applicant's arguments filed 05/21/03, with respect to claims 1-8 have been fully considered and are persuasive. In this respect, it is noted that applicants contended that the art rejection of claims 1-8 has been rendered moot by the concurrently submitted certified translation of the priority document. However, it is further noted that such certified translation of the priority document has not been found or made of record. Thus, applicants are kindly requested to officially submit the certified translation of the priority document or re-submit it if it has been inadvertently misplaced by PTO.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Alejandro whose telephone number is (703) 306-3326.

The examiner can normally be reached on Monday-Thursday (8:30 am - 7:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on (703) 308-2383. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Raymond Alejandro
Examiner
Art Unit 1745


STANDARD EXAMINER
PRIMARY EXAMINER
GROUP 1745